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September 25, 2007

Ms. Christianna Wood
Senior Investment Officer for Global Equities
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400 P Street, Suite 3492
Sacramento, CA 95814

Re: Proposed Restructuring of Global Equity Program

Dear Christy,

In your email of September 6, 2007, you requested Wilshire's opinion regarding potential changes to the existing Global Equity portfolio that will provide the opportunity for the aggregate portfolio to outperform the benchmark by 0.50%. As outlined below, given the size of the Global Equity program, consistently adding that much value may be a difficult task, and will require a number of significant changes to the portfolio. We have outlined our preliminary thoughts below regarding some options that are available to the Global Equity team, and we look forward to implementing these ideas and/or those of your Staff or the other parties from which input was solicited.

Risk Managed Absolute Return Strategies

The first, and easiest to implement, alteration to the current portfolio involves converting the RMARS program to a "portable alpha" portfolio. RMARS currently is benchmarked against a fairly stable T-bills-based benchmark, and the performance of the portfolio has no intended relationship with the movements of the overall stock market. (We recognize that the RMARS portfolio has some positive beta, but this amount is small and incidental.) In a poorly performing stock market, the focus of RMARS on "absolute return" will tend to offset stock market losses and diversify Global Equities returns. However, in a normal or strong market, RMARS may lag the performance of the broad stock market indices even if it performs well, negating some of the positive performance. As a result, many institutional investors have engaged in portable alpha implementations for their hedge fund portfolios, allowing them the best of both worlds – stock market returns and hedge fund alpha – combined. Additionally, this approach is not constrained by the capacity of the futures overlay, only by the size of the underlying hedge fund portfolio, which is already sizeable.

If CalPERS were to add a futures overlay to the RMARS program, significant value could be added at the total portfolio level. Assuming RMARS returns 9% in an average year (actual returns have been higher) and the cost of financing the futures contracts is 5.5% (actual financing costs are usually close to LIBOR, which is currently lower), the RMARS program would be expected to return 3.5% above the stock market in a given year. At a 5% allocation of Global Equities to RMARS, this would result in 16.5 basis points¹ of value added, a third of the desired amount.

Corporate Governance

The Corporate Governance program at CalPERS has been highly successful, and requires little or no changes at the current time. Recently, the allocation to Corporate Governance was increased to 5% of Global Equities. If Corporate Governance can return 2% above the benchmark, net of fees (this is less than the program's historical average), it will contribute 10 basis points of performance to the Global Equities portfolio.

The proposed change to RMARS and the existing Corporate Governance portfolio comprise only 10% of Global Equity assets but have the potential to add 26.5 basis points of the 50 basis points sought, leaving 90% of the Global Equity portfolio to yield merely 23.5 basis points.

Internal Enhanced Index Portfolio

This portfolio is currently 3% of the Global Equity assets, but has resulted in 1.7% of outperformance since inception. If this portfolio can continue to add 1% of annual value, it will contribute another 3 basis points to the Global Equity total outperformance. Expanding the size of the program to 5% of the Global Equity assets would increase the value added to 5 basis points. Of course, any increase in size of this portfolio would have to be weighed against the use of enhanced index strategies in the externally-managed portion of the Global Equity portfolio. As the 3rd quarter of 2007 demonstrated, exogenous events can cause with quantitative drivers to underperform at the same time. The advantage of the internally-managed enhanced strategy is the comparatively low fee level.

Additionally, given the success of the internally managed domestic enhanced strategy, CalPERS could test an internally managed international enhanced strategy. Again, this would save on fees compared to the external international enhanced managers, creating a net benefit to the portfolio.

Internal Index Funds

¹ 5% of assets x 3.5% expected value added = 0.165% value added to Global Equities

The internally-managed US and non-US index funds comprise approximately 2/3 of Global Equity's assets. Contrary to their "index" titles, these funds are actually currently managed as extremely-low tracking error (10-20 bp) enhanced index funds. The portfolio managers for these funds are allowed some variation in stock selection from the index weights, with relative position limits of +/- 2 basis points. Since inception, these portfolios have been very successful, with the domestic index portfolio adding 20 basis points of value and the non-US index portfolio adding 30 basis points, albeit over a significantly shorter time period.

If we assume that approximately 50% of Global Equity assets are invested in these low-tracking error portfolios (some of the index funds, like the REIT fund, may continue to be run as index-replication strategies) and can add 10 basis points of value per year, this will generate 5 basis points per year to Global Equity.

Given the success of these strategies, we recommend moving some small fraction of the portfolios, perhaps 5% or 10%, into identically-managed portfolios with slightly higher tracking error. If we set the tracking error limit at 50 basis points in such a pilot program, we can explore whether the current strategies employed by your Staff can be scaled to generate slightly more value in the "index" funds without a radical increase in risk.

Internally Managed Synthetic Enhanced Index Strategies

CalPERS currently employs several external synthetic enhanced index managers whose strategies are based on derivatives-based exposure to equity markets and collateral fixed income portfolios outperforming LIBOR. Currently, CalPERS has roughly \$1.8 billion invested with these external managers, or 1.2% of Global Equity assets. If CalPERS could bring the management of these assets in house, in conjunction with Global Fixed Income, CalPERS could save all of the fees that are currently paid to these external managers. Assuming the managers are paid 20 basis points, this move would save 2.4 basis points for Global Equity.

In addition, we would propose that CalPERS be more opportunistic about its use of this approach. Since the performance of these mandates is largely influenced by the shape of the yield curve, CalPERS could easily turn the portfolios on or off on a quarterly basis based on the current investing and implied financing rates. Done correctly, this would prevent this strategy from acting as a drag on the alpha target in periods where LIBOR-based strategies underperform.

Externally Managed Active Portfolios

Externally managed portfolios currently comprise approximately 20% of Global Equity assets. The above suggestions can add a total of 38.9 basis points of value, plus whatever a pilot low-tracking error quasi-index fund can add. If we assume such a portfolio could generate another 1.5 basis points of total value, this leaves only 9.6 basis points of

required value-added from the external managers at total Global Equity level, or an average of 48² basis points from each manager.

48 basis points, net of fees, is a reasonable expectation for external managers, especially since most enhanced managers suggest they should add 1.00% to 2.00% of value, active managers generally believe they can add 2.00% to 4.00%, and quantitative 130/30 managers are somewhere in between. As a result, we recommend a complete review of the external managers, with the goal of selecting only those in which you have reasonable confidence of consistent outperformance. Although a decrease in the number of external managers will tend to allow for more manager-specific risk, we believe that you are better off with a handful of managers in which you have large positions and high confidence than a vast selection of smaller portfolios which together, due to the law of large numbers, will tend to generate index-like returns over time. Concentrated positions will allow for closer scrutiny of managers, but will also require a willingness to move quickly when managers fail to meet expectations, since poor performance will now have a greater total impact. We recommend that you continue to maintain the “Spring-Fed Pool” structure and keep a number of managers ready to take over portfolios as required, but that only a few are funded at any given time in order to maximize the value added from a few sources.

US/Non-US Rebalancing

In our annual publication of asset class return, risk, and correlation expectations, Wilshire has long contended that US and non-US equities should have similar returns over the long term, but have some diversification benefits versus each other. A number of recent asset-allocation studies performed for a variety of US-based clients have revealed that it is increasingly efficient for clients to eliminate the “home country bias” and proportion their equity investments according to market capitalization, GDP, or some other fair measure of opportunity set. Such a shift generally results in a roughly 50/50 mix of US and non-US equity investments³. In comparison, CalPERS’ equities are currently 2/3 US and 1/3 non-US.

Although we do not believe that a shift away from the home country bias will result in an increase in passively managed returns, the increase in diversification will decrease risk over time, thereby mitigating the potential for disproportionate losses in the portfolio due to an over-reliance in a single country. In addition, most academic and industry studies have concluded that the non-US markets are no more information-efficient than the US markets, and, in many cases, are significantly more inefficient. As a result, active managers have a greater opportunity to add value in the non-US markets, especially in the Emerging Markets, and an increase in the non-US allocation will allow for more potential value-added. In addition, given the recent change away from a “permissible

² Calculated as 0.096% required value added / 20% of Global Equity assets managed externally

³ On a market-capitalization basis, the current allocation of a country neutral portfolio is approximately 45% US, 55% non-US.

list” for emerging markets, we recommend that CalPERS examine markets in the “frontier” emerging markets that are not typically included in the emerging markets benchmarks. While these countries are likely to have more “risk” in them, they are also likely to be much less efficient than more developed countries. Obviously, CalPERS size may be an issue in terms of capacity for any “frontier” manager.

A similar argument can be made for increasing the allocation to mid, small, and micro-cap equities in both the US and non-US markets. Although we do not believe that smaller-capitalization stocks should outperform as a rule, these sectors of the market are more inefficient and will allow for more value-added. In addition, a market-weight to small cap and micro cap in both the US and non-US portfolios will reduce risk when the performance of smaller capitalization stocks differs from larger capitalization stocks.

Conclusion

As we have outlined, we believe there are a number of ways to strive for 50 basis points of outperformance from the Global Equity portfolio. For the most part, we have tried to keep in mind the current delegation limits when evaluating possible strategies (for example, we focused on the target allocation to RMARS and Corporate Governance of 5% each). If those delegation limits were raised, theoretically, achieving the 50 basis point outperformance target would become easier. However, due to CalPERS size, capacity becomes an issue.

If you have any additional questions, please do not hesitate to contact us.

Sincerely,

Two handwritten signatures are present. The signature on the left is written in dark ink and appears to be 'Michael'. The signature on the right is also in dark ink and appears to be 'Ann'. Both signatures are fluid and cursive.